

## Resolvins RvD1 and 17(R)-RvD1 alleviate signs of inflammation in a rat model of endometriosis.

[Dmitrieva N](#)<sup>1</sup>, [Suess G](#)<sup>2</sup>, [Shirley R](#)<sup>2</sup>.

### Abstract

#### **OBJECTIVE:**

To study the effects of two resolvins of D series, RvD1 and 17(R)-RvD1, on inflammatory signs associated with endometriosis (ENDO).

#### **DESIGN:**

In vivo research study.

#### **SETTING:**

Research laboratory.

#### **ANIMAL(S):**

Female Sprague-Dawley rats.

#### **INTERVENTION(S):**

Intravenous or intraperitoneal injections of RvD1 (300 ng/kg) or 17(R)-RvD1 (300 and 900 ng/kg) in rats with surgically induced ENDO.

#### **MAIN OUTCOME MEASURE(S):**

Vascular permeability of ectopic endometrial growths was assessed by Evans Blue extravasation; vaginal hyperalgesia was assessed with telemetered visceromotor response.

#### **RESULT(S):**

Both resolvins, but not vehicle, significantly decreased vascular permeability in ectopic endometrial tissue. 17(R)-RvD1 also significantly alleviated severity of vaginal hyperalgesia.

#### **CONCLUSION(S):**

Our results suggest that RvD1 and 17(R)-RvD1 can be considered for further investigation of their therapeutic potential for treating ENDO.